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ABSTRACT

This curriculum guide provides materials for a competency-based course in building trades at the secondary level. The curriculum design uses the curriculum infused model for the teaching of basic skills as part of vocational education and demonstrates the relationship of vocationally related skills to communication, mathematics, and science knowledge. Basic skills matrices are provided that indicate the curriculum in which each skill is studied. A list of course objectives precedes the curriculum. Course materials are divided into units, each of which correlates task, theory, communication skills, mathematics skills, science knowledge, and student outcomes. Units include careers, safety, hand tools, power tools, fixed power tools, building materials, leveling instrument, blueprint reading, plans specification codes, footing and foundation, framing floor members, framing wall and ceiling, framing roof members, exterior surface, window and exterior doors, exterior wall finish, thermal and sound insulations, interior wall and ceiling finish, and stair construction. (YLB)

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Ocean County Vocational-Technical Schools

Building Trades

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PHILOSOPHY OF EDUCATION

The Ocean County Vocational-Technical Education Program should consist of those courses, activities and experiences which are designed to prepare students for a successful entrance in a given field of work. The program should be based upon an analysis of the worker needs of the field of work, the opportunities and requirements for entrance, and the particular characteristics and needs of the students.

We believe that:

The school should educate and train the students to live effectively in our ever-changing world.

The school should provide, for each student, intensive training toward general and specific job objectives, and setting standards of performance in keeping with the requirements of that particular field of work.

All students should evidence the interest, aptitude, and ability to profit from the specialized instruction, and this should be a condition of entrance into or continuance in a given field of work.

Equal attention should be given in the school program to develop sound character, good citizenship, ability to think critically, and maintain good mental and physical health.

The school must be constantly striving to fulfill its ultimate purpose; that of serving the students and the community. The school should give careful consideration to the needs, interests, and capacities of the students and the educational and technical background, experience, training, and professional interest of the professional staff as they develop a working philosophy of education.

PREFACE

The curriculum format employed by this project is competency based and utilizes the Ocean County Vocational-Technical Schools' curriculum infused model for the teaching of basic skills as part of vocational education. The design demonstrates the relationship of vocationally related skills to communication, mathematics and science knowledge. Proficiencies with regard to student outcomes cannot be achieved without mastery in related academic areas. All student outcome objectives are predicated upon entry level skills which reflect the dictates of the job marketplace and industry. In addition, basic skills matrices developed by the district and vocational skill profiles are included. The totality of this package is designed to facilitate the vocational teaching process and to enhance the learning experiences of our students.

450 hours - 1 year course at O.C.V.T.S.
900 hours - 2 year course at O.C.V.T.S.
1000 hours - 2 year Beauty Culture course

120 hours per year needed for 5 credits
60 hours per year needed for 2½ credits

COURSE	TOTAL HOURS	HOURS SPENT COMMUNICATION SKILLS	HOURS SPENT ON COMPUTATION SKILLS	HOURS SPENT ON SCIENCE	TIME ON OCCUPATIONAL ACTIVITIES IN CLASS OR SHOP
AIR CONDITIONING, REFRIGERATION AND HEATING	900	140	120	120	520
AUTO BODY REPAIR	900	130	120	125	525
AUTOMOTIVE MECHANICS	900	150	120	120	510
AUTOMOTIVE AND DIESEL ENGINE REBUILDING	900	216	126	125	433
BEAUTY CULTURE I AND II	1000	240	120	164	476
BUILDING TRADES	900	135	120	130	515
BUSINESS RELATIONS - MEDIA/MODELING/TRAVEL	450	200	60	40	150
CHILD CARE AIDE	900	240	120	122	418

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900 hours - 2 year course at O.C.V.T.S.
1000 hours - 2 year Beauty Culture course

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60 hours per year needed for 2½ credits

COURSE	TOTAL HOURS	HOURS SPENT ON COMMUNICATION SKILLS	HOURS SPENT ON COMPUTATION SKILLS	HOURS SPENT ON SCIENCE	TIME ON OCCUPATIONAL ACTIVITIES IN CLASS OR SHOP
COMMERCIAL ART AND PRINTING CAREERS	900	120	125	75	580
COMMERCIAL BUILDING CONSTRUCTION (MASONRY)	900	130	125	130	515
COMMERCIAL PHOTOGRAPHY & TELEVISION PRODUCTION	900	150	125	80	545
CUSTOM CABINETMAKING AND DESIGN	900	130	120	60	590
DENTAL ASSISTING	450	168	65	77	140
DESIGN DRAFTING	900	135	150	165	450
ELECTRICAL TRADES	900	106	120	124	550
FOOD SERVICES	900	206	132	125	437

450 hours - 1 year course at O.C.V.T.S.
900 hours - 2 year course at O.C.V.T.S.
1000 hours - 2 year Beauty Culture course

120 hours per year needed for 5 credits
60 hours per year needed for 2½ credits

COURSE	TOTAL HOURS	HOURS SPENT ON COMMUNICATION SKILLS	HOURS SPENT ON COMPUTATION SKILLS	HOURS SPENT ON SCIENCE	TIME ON OCCUPATIONAL ACTIVITIES IN CLASS OR SHOP
INDUSTRIAL AUTOMATION AND ELECTRONICS	900	129	140	132	499
INTERIOR ARCHITECTURE AND DESIGN	900	210	130	120	440
LANDSCAPING AND GREENHOUSE TECHNOLOGY	900	125	125	175	475
MACHINE SHOP TRADES	900	129	120	70	581
MARINE ENGINE AND BOAT SERVICE	900	164	120	125	491
MEDICAL-DENTAL RECEPTIONIST	450	173	60	77	140
MEDICAL SKILLS AND RELATED HEALTH CAREERS	450	135	65	125	125
MEDICAL SKILLS (ADVANCED)	450	125	60	125	140

450 hours - 1 year course at O.C.V.T.S.
900 hours - 2 year course at O.C.V.T.S.
1000 hours - 2 year Beauty Culture course

120 hours per year needed for 5 credits
60 hours per year needed for 2½ credits

COURSE	TOTAL HOURS	HOURS SPENT ON COMMUNICATION SKILLS	HOURS SPENT ON COMPUTATION SKILLS	HOURS SPENT ON SCIENCE	TIME ON OCCUPATIONAL ACTIVITIES IN CLASS OR SHOP
PLUMBING AND HEATING	900	140	120	120	520
RECREATIONAL VEHICLE MAINTENANCE AND REPAIR	900	125	130	60	585
T.V. AND COMPUTER REPAIR	900	125	150	175	450
WELDING	900	135	120	100	545

COMMUNICATION SKILLS

Listed below are all courses offered at the Ocean County Vocational-Technical School. The asterisk indicates that the topic is studies in that curriculum.

COURSE	Functional Reading Skills	Vocabulary	Identifying Main Ideas	Meanings in Context	Inferences	Fact-Opinion Distinction	Signal Words	Parts of Text-book/Manual	Following Directions	Outlining and Notetaking	Interpretation Maps, Graphs & Charts	Interpretation Diagrams, etc.	Test Taking Skills	Expository Writing Skills	Problem Solving	Spelling	Oral Communication	Study Skills	Resume Writing	Job Application Skills
AIR CONDITIONING, REFRIGERATION AND HEATING	*	*		*	*	*	*		*	*	*	*		*	*	*	*		*	*
AUTO BODY REPAIR	*	*		*	*	*	*		*	*	*	*		*	*	*	*		*	*
AUTO MECHANICS	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*	*	*	*	*
AUTOMOTIVE & DIESEL ENGINE REBUILDING	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*	*		*	*
BEAUTY CULTURE I AND II	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*
BUILDING TRADES	*	*		*	*	*	*		*	*	*	*		*	*	*	*		*	*
BUSINESS RELATIONS - MEDIA/MODELING/TRAVEL	*	*	*	*	*	*	*		*		*	*		*		*	*		*	*
CHILD CARE AIDE	*	*	*	*	*	*	*		*	*	*		*	*		*	*	*	*	*
COMMERCIAL ART AND PRINTING CAREERS	*	*	*	*	*	*	*		*	*	*	*		*	*	*	*		*	*
COMMERCIAL BUILDING CONSTRUCTION	*	*	*		*	*	*		*	*	*	*		*			*		*	*
COMMERCIAL PHOTOGRAPHY AND TELEVISION PRODUCTION	*	*	*	*	*	*	*		*	*	*	*		*	*	*	*		*	*
CUSTOM CABINETMAKING AND DESIGN	*	*		*	*	*	*		*	*	*	*		*	*	*	*		*	*
DENTAL ASSISTING	*	*	*	*	*	*	*		*	*	*	*		*	*	*	*		*	*

COMMUNICATION SKILLS CONTINUED

COURSE	Functional Reading Skills	Vocabulary	Identifying Main Ideas	Meanings in Context	Inferences	Fact-Opinion Distinction	Signal Words	Parts of Textbook/Manual	Following Directions	Outlining and Notetaking	Interpretation Maps, Graphs, Charts	Interpretation Diagrams, etc.	Test Taking Skills	Expository Writing Skills	Problem Solving	Spelling	Oral Communication	Study Skills	Resume Writing	Job Application Skills
DESIGN DRAFTING	*	*	*		*	*	*		*	*	*	*		*	*				*	*
ELECTRICAL TRADES	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*			*	*
FOOD SERVICES	*	*	*		*	*			*		*	*		*	*		*		*	*
INDUSTRIAL AUTOMATION AND ELECTRONICS	*	*	*		*	*			*		*	*		*	*		*		*	*
INTERIOR ARCHITECTURE AND DESIGN	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*	*		*	*
LANDSCAPING AND GREENHOUSE TECHNOLOGY	*	*	*	*	*	*	*		*	*	*	*		*	*		*		*	*
MACHINE SHOP TRADES	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MARINE ENGINE AND BOAT SERVICE	*	*	*		*	*	*	*	*	*	*	*		*	*				*	*
MEDICAL-DENTAL RECEPTIONIST	*	*	*	*	*	*	*		*	*	*	*		*		*	*	*	*	*
MEDICAL SKILLS AND RELATED HEALTH CAREER	*	*	*	*	*	*	*		*	*	*	*		*		*	*	*	*	*
MEDICAL SKILLS (ADVANCED)	*	*	*	*	*	*	*		*	*	*	*		*		*	*	*	*	*
PLUMBING AND HEATING	*	*	*	*	*	*	*	*	*	*	*	*		*	*				*	*
RECREATIONAL VEHICLE MAINTENANCE AND REPAIR	*	*	*	*	*	*	*	*	*	*	*	*		*	*				*	*
T.V. AND COMPUTER REPAIR	*	*	*	*	*	*	*	*	*		*	*		*	*				*	*
WELDING	*	*	*			*	*		*	*	*	*		*	*				*	*

MATHEMATICS SKILLS

Listed below are all courses offered at the Ocean County Vocational-Technical School. Those listed as "Not Available" do not offer enough hours to qualify for credits at your high school. However, we have noted the skills covered. Those listed with an asterisk after the title are eligible. The asterisk indicates that the topic is studied in that curriculum.

COURSE	Whole Numbers	Common Fractions	Decimals	Percentages	Weights and Measurements	Ratio and Proportion	Powers and Roots	Formulas	Estimating	Geometry	Basic Trigo-metric Function	Graphs
AIR CONDITIONING, REFRIGERATION AND HEATING	*	*	*	*	*	*	*	*	*	*	*	*
AUTO BODY REPAIR	*	*	*	*	*	*	*	*	*	*		*
AUTO MECHANICS	*	*	*	*	*	*	*	*	*			*
AUTOMOTIVE AND DIESEL ENGINE REBUILDING	*	*	*	*	*	*	*	*	*			*
BEAUTY CULTURE I AND II	*	*	*	*	*	*	*	*	*	*	*	*
BUILDING TRADES	*	*	*	*	*	*	*	*	*	*	*	*
BUSINESS RELATIONS - MEDIA/MODELING/TRAVEL	*		*	*		*			*			*
CHILD CARE AIDE	*	*	*	*	*	*		*	*	*	*	*
COMMERCIAL ART AND PRINTING CAREERS	*	*	*	*	*	*		*	*	*		*
COMMERCIAL BUILDING CONSTRUCTION	*	*	*	*	*	*		*	*	*	*	*
COMMERCIAL PHOTOGRAPHY AND TELEVISION PRODUCTION	*	*	*	*	*	*		*			*	
CUSTOM CABINETMAKING AND DESIGN	*	*	*	*	*	*	*	*	*	*	*	*
DENTAL ASSISTING	*	*	*	*	*	*		*				*

MATHEMATICS SKILLS CONTINUED

COURSE	Whole Numbers	Common Fractions	Decimals	Percentages	Weights and Measurements	Ratio and Proportion	Powers and Roots	Formulas	Estimating	Geometry	Basic Trigo-metric Function	Graphs
DESIGN DRAFTING	*	*	*	*	*	*		*	*	*	*	
ELECTRICAL TRADES	*	*	*	*	*	*	*	*	*	*		*
FOOD SERVICES	*	*	*	*	*			*	*			*
INDUSTRIAL AUTOMATION AND ELECTRONICS	*	*	*	*	*	*	*	*	*	*	*	*
INTERIOR ARCHITECTURE AND DESIGN	*	*	*	*	*	*		*	*			*
LANDSCAPING AND GREENHOUSE TECHNOLOGY	*	*	*	*	*	*		*			*	*
MACHINE SHOP TRADES	*	*	*	*	*	*	*	*	*	*	*	*
MARINE ENGINE AND BOAT SERVICE	*	*	*	*	*	*		*			*	*
MEDICAL-DENTAL RECEPTIONIST	*	*	*	*	*	*	*	*	*	*		*
MEDICAL SKILLS AND RELATED HEALTH CAREERS	*	*	*	*	*	*		*			*	
MEDICAL SKILLS (ADVANCED)	*	*	*	*	*	*		*			*	
PLUMBING AND HEATING	*	*	*	*	*	*		*			*	*
RECREATIONAL VEHICLE MAINTENANCE AND REPAIR	*	*	*	*	*	*		*			*	*
T.V. AND COMPUTER REPAIR	*	*	*	*	*	*	*	*			*	*
WELDING	*	*	*	*	*	*		*			*	*

SCIENCE SKILLS

Listed below are all courses offered at the Ocean County Vocational-Technical School. Those listed as "Not Available" do not offer enough hours to qualify for credits at your high school. However, we have noted the skills covered. Those listed with an asterisk after the title are eligible. The asterisk indicates that the topic is studied in that curriculum.

	HUMAN ANATOMY						ASTRONOMY			CHEMISTRY			PHYSICS					ECOLOGY				
COURSE	Cellular Theory	Skeletal System	Muscles	Systems of Body	Diseases	Psychology	Solar System	Gravity	Weather	Matter	Chemical Reactions	Applied Chemistry	Light	Magnetism	Heat	Magnetism and Electricity	Nuclear Energy	Botany	Food Production	Fuels	Nutrition	Waste Disposal
AIR CONDITIONING, REFRIGERATION AND HEATING							*	*	*	*	*	*			*	*				*	*	
AUTO BODY REPAIR								*	*	*	*	*	*	*	*					*		*
AUTO MECHANICS								*		*	*	*	*	*	*	*				*		
AUTOMOTIVE DIESEL AND ENGINE REBUILDING								*		*	*	*		*	*	*	*			*		*
BEAUTY CULTURE I AND II	*	*	*	*	*	*					*	*									*	
BUILDING TRADES							*	*	*	*	*	*	*		*	*				*		
BUSINESS RELATIONS - MEDIA/MODELING/TRAVEL		*	*	*		*																
CHILD CARE AIDE	*	*	*	*	*	*															*	
COMMERCIAL ART AND PRINTING CAREERS	N	O	T	A	V	A	I	* L	A	* B	* L	* E	*		*	*						*
COMMERCIAL PHOTOGRAPHY AND TELEVISION PRODUCTION	N	O	T	A	V	* A	I	* L	A	* B	* L	* E	*		*	*						*
CUSTOM CABINETMAKING AND DESIGN	* N	O	T	A	V	A	I	* L	A	* B	* L	* E			*			*				

SCIENCE SKILLS CONTINUED	HUMAN ANATOMY						ASTRONOMY			CHEMISTRY			PHYSICS					ECOLOGY				
COURSE	Cellular Theory	Skeletal System	Muscles	System of Body	Diseases	Psychology	Solar System	Gravity	Weather	Matter	Chemical Reactions	Applied Chemistry	Light	Magnetism	Heat	Magnetism and Electricity	Nuclear Energy	Botany	Food Production	Fuels	Nutrition	Waste Disposal
DENTAL ASSISTING	*	*	*	*	*	*				*	*	*									*	
DESIGN DRAFTING							*		*	*		*	*		*	*				*		
ELECTRICAL TRADES							*	*	*				*	*	*	*	*		*			
FOOD SERVICES					*	*					*	*							*		*	
INDUSTRIAL AUTOMATION AND ELECTRONICS								*		*			*	*	*	*	*			*		
INTERIOR ARCHITECTURE AND DESIGN		*	*			*	*	*	*	*	*	*	*		*	*						
LANDSCAPING AND GREENHOUSE TECHNOLOGY							*	*	*		*	*						*	*	*		
MACHINE SHOP TRADES										*					*	*				*		
MARINE ENGINE AND BOAT SERVICE								*	*	*	*	*	*	*	*					*		
MEDICAL-DENTAL RECEPTIONIST	N	* O	* T	* A	* V	* A	I	L	A	B	* L	E										
MEDICAL SKILLS AND RELATED HEALTH CAREERS	*	*	*	*	*	*				*	*										*	
MEDICAL SKILLS (ADVANCED)	*	*	*	*	*	*				*	*										*	
PLUMBING AND HEATING								*	*	*	*	*			*					*		
RECREATIONAL VEHICLE MAINTENANCE AND REPAIR	N	O	T	A	V	A	I	* L	A	* B	* L	* E	*	*	*					*		
T.V. AND COMPUTER REPAIR										*	*	*	*	*	*	*						
WELDING								*		*	*	*		*	*					*		

COURSE OBJECTIVES

1. To prepare students with entry level skills, abilities and knowledge for employment in the building trades.

2. To present 900 hours of instruction and practice in the building trades in accordance with the course curriculum and skill profile outline.

3. To provide a detailed summary evaluation of the proficiency achieved by each student representing the most important content areas presented in the building trades skill profile.

4. To help each student develop positive attitudes and ideals related to their occupation in the building trades and understand their own capabilities and potential.

5. To instill in each student the need to plan for their professional growth through continuous learning in their chosen occupation.

STUDENT ACTIVITIES

All students enrolled in the Ocean County Vocational-Technical School are encouraged to join Vocational Industrial Clubs of America (VICA). Student activities are infused into each program. Each building has a student government and a student activities program separate from VICA. Additionally, students from each center and every class are encouraged to participate in the VICA Leadership and Job Demonstration Contests which begin in the centers and radiate throughout the district as Ocean County Vocational-Technical School inter school winners are chosen.

Student activities emphasize the basic precepts of VICA, as well as, the basic tenets of democracy. Within that context, each of our programs teaches the dignity of work, high standards in trade ethics and safety, and a belief in the free enterprise economic system.

UNIT: CAREERS IN BUILDING TRADES

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
	I. Career opportunities A. Carpenter B. Design drafter C. Estimator D. Construction code officer E. Surveyor F. Roofer G. Sider H. Painter I. Drywall installer J. Lumber salesman	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Interpretation of blueprints F. Problem solving G. Resume writing H. Job application skills	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Weights and measurements F. Ratio and proportion G. Powers and roots H. Formulas I. Estimating J. Geometry K. Basic trigometric function L. Graphs	A. Applied chemistry 1. Paint 2. Varnish 3. Wood 4. Shellac 5. Glue B. Physics Heat	A. The student will be able to demonstrate a knowledge of working with wood B. Student will be able to sketch house plans C. Student will be able to calculate material needed for house plans D. Student will be able to recognize the safet codes E. Student will be able to compute land measurements F. Student will be able to apply roof shingles G. Student will be able to install siding on home H. Student will be able to apply paint I. Student will be able to install gypsum wall board J. Student will be able to explain the uses of different woods

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
	II. Training A. Education B. Applications C. Cooperative Industrial Education (CIE) program D. Vocational Industrial Clubs of America (VICA) program E. Safety rules and regulations	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Interpretation of prints F. Problem solving	A. Math computations B. Whole numbers C. Common fractions D. Decimals E. Percentages F. Geometry G. Basic trigometric functions		A. Student will be able to select proper courses B. Student will be able to complete a job application and resume C. Student will be able to describe the CIE program D. Student will be able to define VICA and its purpose E. Student will be able to list the safety regulations
	III. Apprenticeship A. Commitment B. Age C. Term D. Skills to learn E. Salary F. Qualifications G. Orientation quiz	A. Functional reading skills B. Vocabulary C. Following directions D. Outlining and note taking E. Interpretation of prints F. Problem solving	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Ratio and proportion F. Powers and roots G. Formulas H. Estimating I. Geometry J. Basic trigometric functions		A. Student will be able to define the apprenticeship program B. Student will be able to complete the orientation quiz with 70% accuracy

UNIT: SAFETY

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Utilizing tools safely	A. Shop safety B. Site safety C. Clothing and personal items D. Tools 1. Hand 2. Power E. Ladders and scaffolds F. Lifting and carrying G. Fire saftey H. Electrical safety	A. Functional reading skills 1. Textbook 2. Shop signage B. Vocabulary Safety terminology C. Following directions D. Note taking E. Interpretation of diagrams	A. Whole numbers Sawblade sizes B. Common fractions 1. Sawblade sizes 2. Hammer weights C. Geometry Geometric safety symbols	A. Chemical reactions Combustion B. Applied chemistry 1. Solvents 2. Treated lumber 3. Rail coatings C. Physics Heat	A. Student will be able to explain shop safety on a written test B. Student will be able to demonstrate safe use of ladders and scaffolds C. Student will be able to identify appropriate clothing and safety equipment D. Student will be able to select the correct tool E. Student will be able to lift objects properly F. Student will be able to explain fire hazards, causes and methods of control on a written examination G. Student will be able to identify class A, class B. and class C fires

UNIT: HAND TOOLS

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Utilizing hand tools safely	A. Striking tools Hammers B. Measuring tools 1. Folding wood rule 2. Long tape 3. Layout tape 4. Combination square 5. Try square 6. Rafter square C. Saws 1. Cross cut 2. Rip saw 3. Back saw 4. Hack saw 5. Keyhole saw 6. Coping saw 7. Drywall saw D. Edge cutting tools 1. Cabinetmakers plane 2. Blocks plane 3. Rabbet plane 4. Jack plane 5. Utility knife 6. Putty knife 7. Scrapper 8. Wood chisels 9. Drilling and boring tools 10. Auger bits 11. Brace 12. Hand drill	A. Functional reading skills B. Vocabulary Hand tool identification C. Following directions D. Outlining and note taking E. Problem solving F. Test taking skills 1. Written test 2. Performance test G. Drawings	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Formulas F. Estimating G. Basic trigometric functions H. Measuring I. Powers and roots	A. Applied chemistry 1. Solvents 2. Oil 3. Grease	A. Student will be able to identify five types of hammers B. Student will be able to list all types of hammers C. Student will be able to demonstrate proper use of hammers D. Student will be able to identify six measuring tools E. Student will be able to list all measuring tools F. Student will be able to demonstrate proper use of measuring tools G. Student will be able to identify seven saws H. Student will be able to list all types of saws I. Student will be able to demonstrate proper use of saws J. Student will be able to identify eight edge cutting tools K. Student will be able to list all types of edge cutting tools L. Student will be able to demonstrate proper use of edge cutting tools

UNIT: HAND TOOLS - CONTINUED

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
	13. Counter sink 14. Drill depth gauge 15. Expansion bit 16. Push drill 17. Doweling jig 18. Drills E. Fastening tools 1. Screwdrivers 2. Adjustable wrench 3. Wrench set 4. Nail set 5. Spiral ratchet screwdriver 6. Screw driver bits 7. Pliers 8. Phillips screw-driver 9. Ripping bar 10. Rip chisel 11. Soft face hammer 12. Hammer				M. Student will be able to identify nine drilling and boring tools N. Student will be able to list all types of drilling and boring tools O. Student will be able to demonstrate proper use of drilling and boring tools P. Student will be able to identify twelve fastening tools Q. Student will be able to list all fastening tools R. Student will be able to demonstrate proper use of fastening tools S. Student will be able to achieve 70% accurac or better on a written test

UNIT: POWER TOOLS

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
II. Utilizing power tools safely	A. Saws 1. Circular a. Clutch drive b. Gear drive 2. Sabre 3. Reciprocating B. Drills 1. ¼" 2. ½" 3. Screw gun C. Power plane D. Motorized mitre box E. Portable routers F. Portable sanders G. Staplers and nailers	A. Functional reading skills B. Vocabulary C. Note taking D. Following directions E. Problem solving F. Test taking skills 1. Written 2. Performance	A. Whole numbers B. Common fractions C. Decimals D. Ratio and proportions E. Formulas F. Geometry G. Basic trigometric functions H. Percentages	A. Applied chemistry Solvent	A. Student will be able t identify three portabl electric saws B. Student will be able t label parts of three portable electric saws C. Student will be able t identify three portabl electric drills D. Student will be able t label parts of three electric drills E. Student will be able t demonstrate proper use of three portable electric drills F. Student will be able t identify a power plane G. Student will be able t label parts of a power plane H. Student will be able to demonstrate proper proper use of a power plane I. Student will be able t identify a motorized mitre box J. Student will be able t label parts of a power mitre box K. Student will be able t demonstrate proper use of a power mitre box L. Student will be able t identify routers

UNIT: POWER TOOLS - CONTINUED

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
					M. Student will be able to label parts of a portable router N. Student will be able to demonstrate proper use of a portable router O. Student will be able to identify a portable sander P. Student will be able to label parts of a portable sander Q. Student will be able to demonstrate proper use of a portable sander R. Student will be able to identify a stapler and nailer S. Student will be able to label parts of a stapler and nailer T. Student will be able to demonstrate proper use of a power stapler and nailer U. Student will be able to explain the function and operation of power tools V. Student will be able to list safety rules for all power tools W. Student will be able to pass a written test with 70% accuracy on all power tools

UNIT: FIXED POWER TOOLS

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Utilizing fixed power tools safely	A. Panel saw B. Table saw C. Band saw D. Radial arm saw E. Jointer F. Drill press	A. Functional reading skills 1. Textbook 2. Handouts B. Vocabulary C. Note taking 1. Textbook 2. Overhead transparencies D. Following directions 1. Safety 2. Procedure E. Problem solving F. Test taking skills 1. Written test 2. Performance test	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurements 1. Standard 2. Metric F. Ratio and proportion G. Powers and roots H. Formulas I. Estimating J. Geometry K. Trigonometry	A. Physics 1. Heat 2. Energy B. Astronomy Gravity	A. The student will be able to identify all fixed power tools B. The student will be able to label parts of all fixed power tools C. The student will be able to explain the function and operatio of the fixed power tools D. The student will be able to list safety rules for power tools E. The student will be able to pass a writte test with 70% accurac F. The student will be able to safely demonstrate the use of fixed power tools G. The student will be able to select the correct speed for a drill press for a job

UNIT: BUILDING MATERIALS

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Analysis of wood	A. Lumber 1. Softwood 2. Hardwood 3. Plywood B. Softwood C. Cutting methods D. Moisture content E. Seasoning lumber F. Lumber defects G. Frades H. Plywood I. Treated lumber	A. Functional reading skills 1. Textbook 2. Handouts B. Note taking 1. Textbook 2. Overhead transparencies C. Vocabulary D. Spelling E. Test taking skills 1. Written test 2. Performance test	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurement Standard F. Ratio and proportions G. Powers and roots H. Formulas I. Estimating J. Geometry K. Trigonometry L. Shapes	A. Natural resources 1. Tree a. Roots b. Leaves c. Layer of cells 2. Softwood a. Conifers 3. Hardwood a. Deciduous B. Astronomy Weight C. Physics 1. Strength 2. Grain pattern D. Chemistry 1. Color 2. Odor	A. The student will be able to identify lumbe classifications on a written test B. The student will be able to state different methods of lumber cutting C. The student will be able to explain moisture content D. The student will be able to name types of methods used in seasoning lumber E. The student will be able to list common lumber defects in lumber F. The student will be able to explain lumber grading terms G. The student will be able to explain plywoo specification H. The student will be able to pass a written test with 70% accuracy

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
II. Application of fasteners	A. Nails B. Screws C. Adhesives			A. Applied chemistry 1. Nails coating 2. Screws B. Chemical reactions 1. Polyvinyl resin glue 2. Contact cement 3. Casein glue	A. The student will be able to explain the difference of fasteners on a written test B. The student will be able to select fasteners for the right job C. The student will be able to pass a writte test with 70% accurac

UNIT: LEVELING INSTRUMENT

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Set up tripod and transit	A. Transit Level B. Tripod Level C. Measurement 1. Horizontal 2. Vertical D. Layout E. Corners F. Property lines G. Plot plan	A. Functional reading skills 1. Textbook 2. Handouts B. Outlining and note taking 1. Textbook 2. Overhead transparencies C. Following directions 1. Safety 2. Procedure D. Problem solving E. Test taking skills 1. Written test 2. Performance test F. Vocabulary G. Interpretation of diagrams H. Interpretation of maps, graphs, and charts I. Spelling	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurement 1. Standard 2. Metric F. Ratio and proportion G. Powers and roots H. Formulas I. Estimating J. Geometry K. Trigonometry L. Graphs	A. Astonomy Gravity B. Physics Heat	A. The student will be able to explain the operation of the builder's level on a written test B. The student will be able to set up, sight, and level transit C. The student will be able to measure and layout angles D. The student will be able to read the vevnier scale E. The student will be able to use a plumb line F. The student will be able to determine elevations G. The student will be able to read plot plan H. The student will be able to build batter board I. The student will be able to square corners J. The student will be able to pass a written test with 70% accuracy

UNIT: BLUEPRINT READING

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Read plans	A. Sections B. Details C. Elevation	A. Functional reading skills B. Vocabulary C. Following directions D. Note taking E. Interpretation of maps, graphs and charts F. Problem solving G. Test taking skills Written test	A. Whole numbers B. Metric C. Common fractions D. Decimals E. Percentages F. Measurements G. Ratio and proportion H. Formulas I. Estimating J. Geometry K. Trigometric function	A. Earth Science	A. The student will be able to locate and read sections and details on a written test B. The student will be able to identify and read elevations readings C. The studentwill be able to interpret window and door schedules D. The student will be able to pass a written test with 70% accuracy
II. Sketching	A. Scale rule B. Lines and dimensions C. Symbols D. Schedules				A. The student will be able to read a scale rule on a written test B. The student will be able to identify different types of lines and read dimensions C. The student will be able to interpret architecture symbols D. The student will be able to break down schedules from start to finish E. The student will be able to pass a written test with 70% accuracy

UNIT: PLANS SPECIFICATION CODES

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Compile a set of plans	A. Plot plans B. Foundation C. Floor plan D. Framing plan E. Roofing plan F. Exterior and interior elevation plan G. Detail plan H. Window and door plan I. Symbols plan J. Electrical plan K. Plumbing plan L. Air conditioning plan M. Heating plan	A. Functional reading skills B. Vocabulary C. Following directions D. Note taking E. Interpretation of maps, charts and graphs F. Problem solving G. Test taking skills 1. Written 2. Performance	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurements F. Ratio and proportion G. Formulas H. Estimating I. Geometry J. Trigometric function	A. Earth science	A. The student will be able to identify and read plans on a written test B. The student will be able to state and rea elevation of site C. The student will be able to explain and read all plans and details D. The student will be able to list all plan: needed for a complete set of plans E. The student will be able to calculate material needed for plans G. The student will be able to pass a writte test with 70% accurac

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
II. Compile a specification list	A. Conditions and information B. Excavating and grading C. Masonry and concrete work D. Sheet metal work E. Rough carpentry and roofing F. Finish carpentry and millwork G. Insulation, caulking and glazing H. Plaster and drywall I. Schedule for room finishers J. Painting and finishing K. Tilework L. Electrical work M. Plumbing N. Heating O. Air conditioning P. Landscaping	A. Functional reading skills B. Vocabulary C. Following directions D. Note taking E. Problem solving F. Test taking skills 1. Written 2. Performance	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurements F. Ratio and proportion	A. Earth science 1. Species of lumber 2. Roof material 3. Insulation B. Applied chemistry 1. Masonry 2. Varnish 3. Stain 4. Thinner C. Physics Heat D. Energy Electrical E. Astronomy Gravity	A. The student will be able to explain the use of building specifications B. The student will be able to define and state the purpose of specifications C. The student will be able to compose their own spec. list D. The student will be able to identify material needed for a spec. list E. The student will be able to pass a written test with 70% accuracy

UNIT: PLANS SPECIFICATIONS CODES - CONTINUED

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
III. Outline the building codes	A. Collection of laws B. Aspects of erection 1. New building 2. Existing building C. Safety, health and welfare of occupants D. Minimum standards 1. Design 2. Quality of material 3. Quality of construction E. Design factors 1. Sizes, height and bulk of building 2. Room size 3. Ceiling height 4. Lighting and vents				A. The student will be able to explain the purpose for building codes on a written test B. The student will be able to recognize the building standards C. The student will be able to pass a written test with 70% accuracy

UNIT: FOOTING AND FOUNDATION

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Preparing mix	A. Footing mix 1. Concrete 2. Cement 3. Sand 4. Aggregates 5. Water B. Mortar mix 1. Cement 2. Sand 3. Water 4. Types a. Type I b. Type II	A. Functional reading skills 1. Textbooks 2. Handouts B. Note taking Overhead transparencies C. Vocabulary D. Spelling E. Test taking skills 1. Written test 2. Performance test	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurement 1. Volume 2. Standard F. Ratio and proportions G. Formulas H. Estimating	A. Chemistry 1. Chemical reactions 2. Applied chemistry 3. Matter B. Physics Heat	A. Student will be able to explain how to estimate quantities for concrete footing B. Student will be able to select elements for footing mix C. Student will be able to identify footing mix classification on a written examination D. Student will be able to idnetify mortar mix on a written examination E. Student will be able to demonstrate how to mix mortar with a power mixer G. Student will be able to pass a written test with 70% accuracy

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
II. Place concrete footing	A. Footing design B. Forms for footings 1. Placing concrete 2. Size and shape 3. Water proofing 4. Placement of rebar	A. Functional reading skills 1. Textbook 2. Handouts B. Note taking Overhead transparencies C. Vocabulary D. Spelling E. Test taking skills 1. Written test 2. Performance test	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurement 1. Volume 2. Standard F. Ratio and proportion G. Formulas H. Estimating	A. Chemistry 1. Chemical reactions 2. Applied chemistry 3. Heat B. Physics Heat	A. Student will be able to explain the purpose of a footing on a written examination B. Student will be able to explain the consequence of improperly built forms C. Student will be able to demonstrate the snap tie on rebars D. Student will be able to pass a written test with 70% accuracy

UNIT: FOOTING AND FOUNDATION - CONTINUED

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
III. Setting foundation walls	A. Concrete block 1. Size and shape 2. Waterproofing 3. Basement 4. Crawl space B. Slab on ground 1. Entrance 2. Monolithic pour 3. Sidewalks and drives 4. Screening 5. Edging C. Wood foundation 1. Stone 2. Pipe	A. Functional reading skills 1. Textbook 2. Handouts B. Note taking Overhead transparencies C. Vocabulary D. Spelling E. Test taking skills 1. Written test 2. Performance test	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurement 1. Volume 2. Standard F. Ratio and proportion G. Formulas H. Estimating	A. Chemistry 1. Chemical reactions 2. Applied chemistry 3. Heat B. Physics Heat	A. Student will be able to identify foundatio walls and purpose on a written examination B. Student will be able to lay a concrete block level and plumb C. Student will be able to demonstrate pourin and finishing of flat work D. Student will be able to pass a written test with 70% accuracy

UNIT: FRAMING FLOOR MEMBERS

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Utilizing floor framing members	A. Types of framing 1. Platform 2. Balloon B. Girders and beams 1. Steel beams 2. Post and columns 3. Framing over girder and beam	A. Functional reading skills 1. Textbook 2. Handouts B. Vocabulary C. Note taking 1. Textbook 2. Overhead transparencies D. Following directions 1. Safety 2. Procedure E. Problem solving F. Test taking skills 1. Written test 2. Performance test	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurements 1. Standard 2. Metric F. Ratio and proportion G. Powers and roots H. Formulas I. Estimating J. Geometry K. Trigonometry	A. Natural resources 1. Tree 2. Softwood 3. Hardwood B. Astronomy Weight C. Physics 1. Strength 2. Grain pattern 3. Span D. Chemistry 1. Color 2. Odor 3. Matter 4. Chemical reactions	A. Student will be able to identify the types of framing on a written examination B. Student will be able to describe steel beams versus wood beams framing C. Student will be able to demonstrate platform framing D. Student will be able to pass a written test with 70% accuracy

UNIT: FRAMING FLOOR MEMBERS - CONTINUED

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
II. Set floor framing members	A. Sill construction Installing sill B. Joists 1. Laying out 2. Installing 3. Frame opening 4. Bridging 5. Cutting joist 6. Steel joist 7. Floor trusses C. Sub floor 1. Plywood 2. Sheet material 3. Glued floor system 4. T and G material	A. Functional reading skills 1. Textbook 2. Handouts B. Vocabulary C. Note taking 1. Textbook 2. Overhead transparencies D. Following directions 1. Safety 2. Procedure E. Problem solving F. Test taking skills 1. Written test 2. Performance test	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurements 1. Standard 2. Metric F. Ratio and proportion G. Powers and roots H. Formulas I. Estimating J. Geometry K. Trigonometry	A. Natural resources 1. Tree 2. Softwood 3. Hardwood B. Astronomy Weight C. Physics 1. Strength 2. Grain pattern 3. Span D. Chemistry 1. Color 2. Odor 3. Matter 4. Chemical reactions	A. Student will be able to identify parts of of a floor framing system on a written examination B. Student will be able to explain sheet material and T and G material for floors framing C. Student will be able to pass a written test with 70% accuracy

UNIT: FRAMING WALL AND CEILING

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Utilizing wall and ceiling members	A. Parts of a wall 1. Corners 2. Partition intersections 3. Rough opening 4. Header construction 5. Double plates 6. Plate layout B. Constructing wall section 1. Partition 2. Non-partition 3. Plumbing walls 4. Barcing 5. Wall sheathing C. Ceiling framing 1. Strong backs 2. Hap cuts 3. Fasten technic	A. Functional reading skills 1. Textbook 2. Handouts B. Vocabulary C. Note taking 1. Textbook 2. Overhead transparencies D. Following directions 1. Safety 2. Procedure E. Problem solving F. Test taking skills 1. Written test 2. Performance test	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurements 1. Standard 2. Metric F. Ratio and proportion G. Powers and roots H. Formulas I. Estimating J. Geometry K. Trigonometry	A. Natural resources 1. Tree 2. Softwood 3. Hardwood B. Astronomy Weight C. Physics 1. Strenght 2. Grain pattern 3. Span D. Chemistry 1. Color 2. Odor 3. Matter 4. Chemical reactions	A. Student will be able to identify the parts of a framing wall on a written examination B. Student will be able to explain a partition and non bearing partition function C. Student will be able to describe a ceiling joist and explain its function D. Student will be able to pass a written test with 70% accuracy

UNIT: FRAMING ROOF MEMBERS

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Utilizing roof members	A. Types of roofs 1. Gable 2. Hip 3. Flat 4. Gambrel 5. Mansard 6. Roof trusses B. Parts of a rafter 1. Slope and pitch 2. Unit measurement 3. Size 4. Plumb cut, tail cut, building line cut, and seat cut 5. Laying out rafter C. Rafters 1. Common 2. Hip and valley 3. Jack D. Roof support 1. Collar beam 2. Porlins E. Structural panels	A. Functional reading skills 1. Textbook 2. Handouts B. Vocabulary C. Note taking 1. Textbook 2. Overhead transparencies D. Following directions 1. Safety 2. Procedure E. Problem solving F. Spelling G. Test taking skills 1. Written test 2. Performance test	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurements 1. Standard 2. Metric F. Ratio and proportion G. Powers and roots H. Formulas I. Estimating J. Geometry K. Trigonometry	A. Natural resources 1. Tree 2. Softwood B. Astronomy Weight C. Physics 1. Strength 2. Grain pattern 3. Forces 4. Span D. Chemistry 1. Color 2. Odor 3. Matter 4. Chemical reactions	A. Student will be able to identify the types of roofs on a written examination B. Student will be able to list the parts of a rafter C. Student will be able to demonstrate laying out rafter cuts D. Student will be able to pass a written test with 70% accuracy

UNIT: EXTERIOR SURFACE

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Employ roofing material	A. Types of material 1. Asphalt 2. Wood 3. Mineral fiber 4. Slate B. Roofing terms 1. Square 2. Exposure 3. Head lap 4. Side lap C. Flashing 1. Eaves 2. Open valley 3. Woven 4. Closed 5. Chimney D. Applications 1. Starter strip 2. Strip shingles 3. Fasteners 4. First and succeeding course E. Low-slope roofs 1. Roll roofs 2. Re-roofs 3. Built up F. Tile roof	A. Functional reading skills 1. Textbook 2. Handouts B. Vocabulary C. Spelling D. Following directions 1. Safety 2. Procedure E. Problem solving F. Test taking skills 1. Written test 2. Performance test	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurements 1. Standard 2. Metric F. Ratio and proportion G. Powers and roots H. Formulas I. Estimating J. Geometry K. Trigonometry	A. Chemistry 1. Color 2. Odor 3. Matter 4. Chemical reactions B. Physics 1. Strength 2. Heat C. Astronomy 1. Weather 2. Gravity	A. Student will be able to identify types of roofing material used on a written examination B. Student will be able to explain roofing terms C. Student will be able to install strip shingles procedure with fasteners D. Student will be able to pass a written test with 70% accuracy

UNIT: WINDOW AND EXTERIOR DOORS

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Utilizing window units	A. Manufacture 1. Aluminum 2. Wood 3. Steel B. Manufacturer standards C. Types of windows 1. Double hung 2. Horizontal sliding 3. Casement 4. Awning 5. Valousious 6. Fixed windows 7. Skylights D. Parts of window 1. Sill 2. Jamb 3. Screens 4. Sizes E. Installing window units	A. Functional reading skills 1. Textbook 2. Handouts B. Vocabulary C. Note taking 1. Textbook 2. Overhead transparencies D. Following directions 1. Safety 2. Procedure E. Problem solving F. Test taking skills 1. Written test 2. Performance test	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurements 1. Standard 2. Metric 3. Units F. Ratio and proportion G. Powers and roots H. Formulas I. Estimating J. Geometry K. Trigonometry	A. Physics 1. Strength 2. Span 3. Heat B. Chemistry Chemical reactions C. Astronomy Weather	A. Student will be able to identify the types of windows on a written examination B. Student will be able to list all the parts of a wooden window C. Student will be able to install wood, aluminum and steel windows to specifications D. Student will be able to pass a written test with 70% accuracy

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
	A. Manufacture 1. Wood 2. Metal B. Types of doors 1. Exterior 2. Interior 3. Pre-hung 4. Sliging glass doors 5. Garage door C. Hardware Counterbalance	A. Functional reading skills 1. Textbook 2. Handouts B. Vocabulary C. Note taking 1. Textbook 2. Overhead transparencies D. Following directions 1. Safety 2. Procedure E. Problem solving F. Test taking skills 1. Written test 2. Performance test	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurements 1. Standard 2. Metric 3. Units F. Ratio and proportion G. Powers and roots H. Formulas I. Estimating J. Geometry K. Trigonometry	A. Physics 1. Strength 2. Span 3. Heat B. Chemistry Chemical reactions C. Astronomy Weather	A. Student will be able to identify exterior door manufacture type on written examinatio B. Student will be able to list types of door used C. Student will be able to install exterior doors and pre-hung doors to specificatio D. Student will be able to pass a written tes with 70% accuracy

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Seal and protect exterior coverings	A. Cornice design 1. Open 2. Closed B. Parts of a cornice and rake construction 1. Ledger 2. Lookout 3. Sub-fascia 4. Fascia 5. Molding 6. Soffit C. Wall finish 1. Horizontal siding 2. Vertical siding 3. Wood shingles 4. Mineral fiber 5. Plywood siding 6. Hardboard siding 7. Aluminum siding 8. Vinyl siding 9. Stucco 10. Brick or stone veneer D. Installation procedure E. Nailing F. Estimating amount of siding needed	A. Functional reading skills 1. Textbook 2. Handouts B. Vocabulary C. Note taking 1. Textbook 2. Overhead transparencies D. Following directions 1. Safety 2. Procedure E. Problem solving F. Test taking skills 1. Written test 2. Performance test	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurements Standard F. Ratio and proportions G. Power and roots H. Formulas I. Estimating J. Geometry K. Trigonometry	A. Physics 1. Strength 2. Grain pattern 3. Clear span 4. Heat B. Chemistry Chemical reactions C. Astronomy 1. Weight 2. Weather	A. Student will be able to identify a cornice design on a written examination B. Student will be able to list parts of a cornice construction C. Student will be able to explain various sidings wall finish D. Student will be able to demonstrate by installing various sidings to specifications E. Student will be able to pass a written test with 70% accuracy

UNIT: THERMAL AND SOUND INSULATIONS

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Installing insulation	A. Heat transmitted 1. Conduction 2. Convection 3. Radiation B. Types of insulation 1. Reflective 2. Battand blanket 3. Fill insulation 4. Rigid 5. Fiberglass rock wool 6. Foamboard 7. Cellulose C. Insulation factors 1. Condensation 2. Vapor barriers 3. Ventilation D. Sound control 1. Intensity 2. Transmission 3. Wall constructions 4. Floors and ceiling 5. Doors and windows 6. Suspended ceiling E. Installation of material E. Maintenance	A. Functional reading skills 1. Textbook 2. Handouts B. Vocabulary C. Note taking D. Following directions 1. Safety 2. Procedure E. Problem solving F. Test taking skills 1. Written test 2. Performance test	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurements Standard F. Ratio and proportion G. Power and roots H. Formulas I. Estimating J. Geometry	A. Physics 1. Heat 2. Light 3. Energy 4. Strength B. Chemistry 1. Chemical reaction 2. Matter C. Astronomy Weather	A. Student will be able to identify types of insulation on a written examination B. Student will be able to list how heat is transmitted C. Student will be able to list elements needed for sound control D. Student will be able to install insulation for walls, floors and ceiling E. Student will be able to pass a written test wtih 70% accuracy

UNIT: INTERIOR WALL AND CEILING FINISH

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Outline interior wall and ceiling finish	A. Interior wall finish 1. Drywall 2. Gypsum wall board 3. Gypsum paneling 4. Plywood and particle board 5. Hardboard and fiberboard 6. Plaster B. Drywall construction 1. Single layer 2. Measuring and cutting 3. Nails and screws 4. Adhesive 5. Joint concealment C. Moisture resistant (MR) wallboard D. Design factors 1. Manufacture 2. Size and height E. Title F. Suspended ceiling	A. Functional reading skills 1. Textbook 2. Handouts B. Vocabulary C. Note taking 1. Textbook 2. Transparencies D. Following directions 1. Safety 2. Procedure E. Problem solving F. Test taking skills 1. Written test 2. Performance test	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurement Standard F. Ratio and proportion G. Powers and roots H. Formulas I. Estimating J. Geometry K. Trigonometry	A. Astronomy Weight B. Physics 1. Strength 2. Span C. Chemistry 1. Chemical reaction 2. Adhesive	A. Student will be able to identify various wall finishes on a written examination B. Student will be able to list various fastening methods of installing drywall C. Student will be able to install drywall board and ceiling title to specificatior D. Student will be able to pass a written test with 70% accuracy

UNIT: STAIR CONSTRUCTION

TOPIC:

TASK	THEORY	COMMUNICATION SKILLS	MATHEMATICS SKILLS	SCIENCE KNOWLEDGE	STUDENT OUTCOME
I. Utilizing stair members	A. Types of stairs 1. Open 2. Closed B. Parts and terms 1. Risers 2. Tread 3. Stringer 4. Unit rise 5. Unit run 6. Total rise 7. Total run C. Stair design D. Stair calculation E. Type of stringers 1. Open 2. Semi housed 3. Housed stringer F. Stairs 1. Winder 2. Open 3. Spiral 4. Disappearing units	A. Functional reading skills 1. Textbook 2. Handouts B. Vocabulary C. Note taking 1. Textbook 2. Transparencies D. Following directions 1. Safety 2. Procedure E. Problem solving F. Test taking skills 1. Written test 2. Performance test	A. Whole numbers B. Common fractions C. Decimals D. Percentages E. Measurement Standard F. Ratio and proportion G. Power and roots H. Formulas I. Estimating J. Geometry K. Trigonometry	A. Physics 1. Strength 2. Grain pattern 3. Span B. Chemistry 1. Chemical reaction 2. Adhesive	A. Student will be able to identify type of stairs used on a written examination B. Student will be able to list parts of a stair construction C. Student will be able to calculate riser and tread relationship D. Student will be able to explain various types of stairs E. Student will be able to pass a written test with 70% accuracy